

Application Note

Unistream USP Series OS Upgrades

Summary

Fit USB Stick (DOK) or SD Card to PLC (not to computer)

Start Unilogic

Start REMOTE UPDATE with FORCE ticked

Set Unilogic project IP address

Download new project

Fit USB Stick (DOK) or SD Card to PLC (not to computer)

The preferred method is to use an SD card but fit either to the PLC before starting the update, by fitting the SD card or the USB stick to the PLC the OS update will start automatically after the file transfer is complete.

Start Unilogic

Start the software and open a new project then connect to the PLC. If the software indicates that an OS upgrade is required then go to Unistream Management and choose REMOTE UPDATE.

Start REMOTE UPDATE with FORCE ticked

Set the target to either USB (DOK) or SD card but make sure to tick the FORCE box. This ensures that all files are replaced. This process will take 5-10 minutes and when complete there will be an error on the PLC as the factory installed demo program is now of the wrong revision level.

Set Unilogic project IP address

In the Solution Explorer under PLC Communications > Physical > Panel Ethernet set the required IP address of the PLC. This is not required if you are downloading an existing project.

Download new project

Download the project which will correct the error message on the PLC. The OS upgrade is now complete.

A more detailed procedure is available on the following pages.

End of summary

Application Note

From time to time Unित्रonics issue upgrades to the operating system which are normally paired to a new version of Unilogic, if you upgrade Unilogic then you must upgrade the PLC & HMI OS to a matched version, note that the version numbers of Unilogic and the OS are not always the same.

Once the OS upgrade has completed it is necessary to download an upgraded version of the user program or a blank project to the PLC. **Please ensure that this project has VNC enabled and the correct IP address otherwise you will lose communication from the computer.** VNC is disabled by default, in the Solution Explorer go to Password Management and enable VNC. The panel IP address of a new project is unlikely to be correct and is set in PLC Communications > Physical

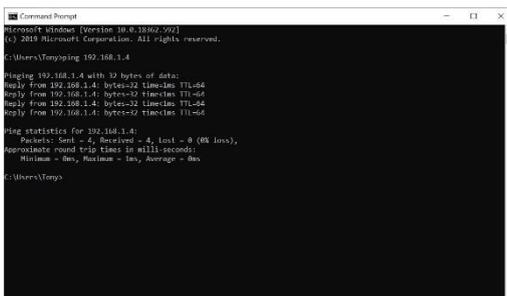
The preferred upgrade method is to use the Remote Upgrade option from the Unistream Management menu and download files to either an SD card or a USB stick fitted to the PLC BEFORE starting the upgrade process. This will ensure that the upgrade process starts automatically as soon as the files have downloaded.

*Note that most laptops will have two IP addresses, one for the WiFi connection and one for the cable connection. Make sure that your computer has the same subnet settings as the PLC for whichever physical method of connection you are using. eg 192.168.1.xxx. The following application note is based on Windows 10 settings, there may be some variation in the images depending on which version of Windows you are using. **Make sure that the above default addresses DO NOT clash with existing network addresses***

USB Snippet

The Unistream USB driver installs as an R-NDIS network adaptor NOT as a virtual serial port so if you are connected to the PLC using a USB cable you will see an additional Ethernet adaptor when you go to the Windows Network and Sharing Centre

Remove the battery insulating tag from the battery compartment and insert an SD card (if required, **it IS recommended**) into the card socket to the right hand side of the PLC. Power up the PLC.



```
Microsoft Windows [Version 10.0.18092.992]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Tony>ping 192.168.1.4

Pinging 192.168.1.4 with 32 bytes of data:
Reply from 192.168.1.4: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.1.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milliseconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\Tony>
```

Connect the PC to the PLC with an Ethernet cable or connect the PLC to a wireless access point. Check the PC-PLC connection by opening a Command Box (type 'cmd' into the Taskbar Search box) and pinging the PLC default IP address. You should see a reply similar to the one to the left indicating that there is a device with that IP address. Disconnect the PLC and run the test again, if there is no reply then this confirms that the PLC has been assigned that address.

If there is a reply this may indicate that the PLC default addresses are already in use by some other device.

Application Note

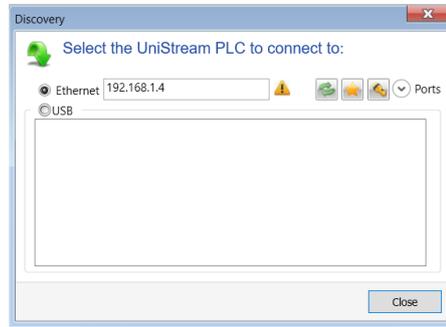
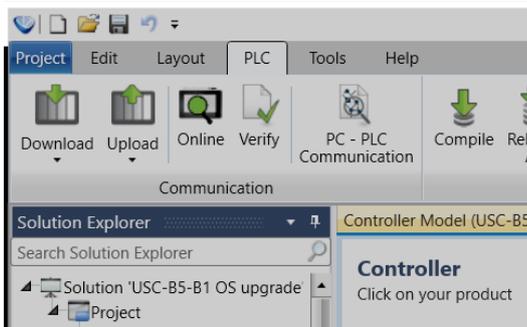


The factory default program loaded into the PLC will produce an image like this.

We are now ready to upgrade the PLC operating system..

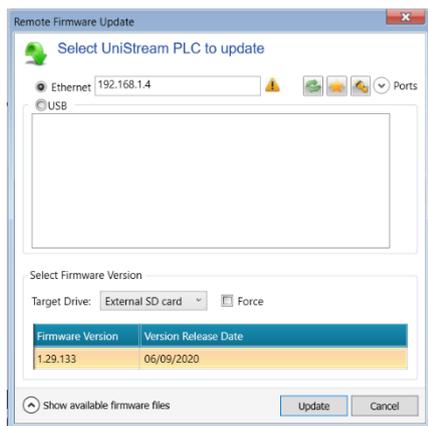
Unilogic programming software

Open the version of Unilogic currently on your computer, open a new project and select the PLC type that you are using. You can connect to the PLC either via Ethernet or via USB. Select the PLC tab from the main ribbon, then select PC-PLC Communication which opens the following dialog box.



Note the small warning triangle to the right of the Ethernet IP address, this indicates that an OS upgrade is needed. Select Unistream Management from the main ribbon then Remote Update which opens the following dialog box.

Note also that setting the IP address of the PLC here DOES NOT affect the IP Address that is downloaded to the PLC, the address that is sent to the PLC can be seen in the Solution Explorer under PLC Communications > Physical > Panel Ethernet.



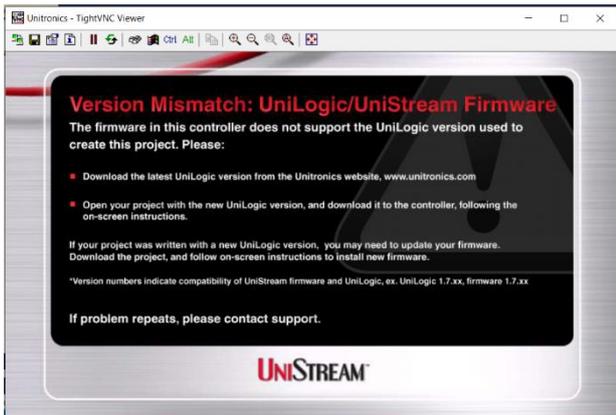
This dialog box is set to download the files to the SD card in the PLC, note that this is an optional extra and is not fitted as standard. Use a micro SD card with a **capacity of 32Gb or smaller**.

If there is no SD card then you may select to download files to a DOK (USB stick) either attached to your PC or the PLC.

In either case also select the FORCE box and finish with UPDATE.

This will result in files being unpacked and transferred to the storage device, it will take 5-10 minutes to complete.

Application Note



When the upgrade is complete you will see the error message shown to the left. **This is normal** and is because the application program (written by the user) is now incompatible with the new OS version. Download your application program again from the new UniLogic version or download a blank program.

The PLC may require the power to be cycled once the program is downloaded.

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